

NOAA Education Council Meeting

Date/Time: January 20, 2015 / 1:00–4:00 pm
Location: SSMC3, Room 14836
Dial-in: 866.901.0711
Passcode: 8134683
Contact: Lisa Nakamura (202) 482-3139, Patrick Drupp (202) 482-9183

Adobe Connects Link to Meeting: <http://connectpro46305642.adobeconnect.com/edcouncil/>

****Important Note Regarding Audio:** Unless you have a PC headset with a microphone, please remember to mute or turn off your computer speakers when you call in to avoid sound interference. If you have a PC headset, you will be able to connect directly through your computer and participate in the meeting as normal, without needing to dial the number above through your phone. Detailed instructions on how to set up your audio in Adobe Connects are available here: http://www.oesd.NOAA.gov/council/Audio_AdobeConnects.pdf

AGENDA

- 1:00 Welcome/Opening remarks
- 1:15 NOAA Camp Panel Discussion (*Informational*) - Lisa Hiruki-Raring, Kristen Jabanoski, Stephanie Bennett sponsors
- Introduction to panel session (10 min)
 - Panelists: Maile Sullivan, Lisa Hiruki-Raring, Vernon Morris, Patty Miller, Stephanie Bennett
 - Introduction to Seattle Science Camp and NCAS Weather Camp (25 min total)
 - Break (15 min)
 - Introduction to IRC Science Camp (10 min)
 - Questions for panelists by moderator (25 min)
 - Council discussion (50 min)
- 3:30 Updates and announcements

ATTENDANCE

In room (22): Christos Michalopoulos (CM), Lisa Nakamura (LN), Louisa Koch (LK), Pat Drupp (PD), Bronwen Rice (BR), Rochelle Plutchak (RP), Bruce Moravchik (BM), Marlene Kaplan (MK), Marissa Jones (MJ), Maile Sullivan (MS), Lisa Hiruki-Raring (LHR), Jon Lilley (JL), Jennifer Hammond (JH), Natasha White (NW), Tracy Peterson (TP), Sarah Schoedinger (SSc), Carrie McDougall (CMc), Jessica Cooper (JC), Ron Gird (RG), Kristen Jabanoski (KJ), Kate Naughten (KN), Vernon Morris (VM)

On phone: Faith Borden (FB), John Baek (JB), Judy Koepsell (JK), June Teisan (JT), Kerry Jones (KJo), Atziri Ibanez (AI), Seaberry Nachbar (SN), Paula Keener (PK), Peg Steffen (PS), Stephanie Bennett (SB), Shannon Sprague (SS), Susan Haynes (SH), Patty Miller (PM), Nina Jackson (NJ)

NOAA Camp Panel Discussion (*Informational*) - Lisa Hiruki-Raring, Kristen Jabanoski, Stephanie Bennett sponsors

LN: The purpose of today is trying a new format to have a panel discussion for the whole Council meeting on NOAA camps. We want to build a community of camp providers to provide an opportunity to learn from each other. Both of these contribute to goal 1 and goal 4 of the new strategic plan.

- Panelists: Maile Sullivan, Lisa Hiruki-Raring, Vernon Morris, Patty Miller, Stephanie Bennett

See documents on intranet site for presentation for each camp

Moderator Questions for Panel

- LN (to Seattle Science Camp): Based on what you learned from the evaluations, are there things you are currently trying to improve?
 - MS: variety of evaluations (exit tickets at the end of each activity) so we get immediate feedback throughout the week; pre- and post-evaluations about what kids are learning over the course of the week. It can be hard to tease out which kids were already very interested in marine science and how much they are actually learning – how can we improve our evaluation. Using iclickers to get immediate results to questions – turning it into a game to assess knowledge; we've been trying to figure out the longitudinal piece, how do we follow the kids through the pipeline through to their careers?
 - VM: To get that information directly, most students just stay in contact with me. The American Meteorological Society (AMS) meeting is also an important meeting. If students go into undergrad or grad program they usually come, and we sponsor a reception at that meeting for students to meet up and expand their networks. We also send out an alumni survey that was designed to glean basic information about where they are now and what path they took. We send it to everyone starting last year and have a 10% return so far. We use contact and email info from the start of the camp in 2002. We hope to get about 30% return rate and improve in the future. It is much easier to find people now through the internet, LinkedIn, Facebook, etc. That helps to get the survey out there. The last 5 years we've had a robust entrance and exit survey that has provided a lot of great data for analysis. Every camp has a 20 question content quiz. At each camp there is a question board for student questions throughout the camps week and the counselors try to incorporate and answer those questions by the end of the camp.
- LN: (to Vernon) People on the council are interested in taking lessons learned and expanding them out to other locations. What pointers can you give to being replicable and scalable?
 - VM: Camps are inherently replicable. The challenge is sustainability and finding someone who will commit to organizing and staffing the camp and finding the resources necessary. It is a significant time commitment from the camp. There

are a lot of pieces to doing the camp. We provide the templates for the surveys and demo modules. We try to get feedback on what works and what doesn't.

- MS: Do you oversee all the NOAA funded camps? How do you staff them?
 - VM: We oversee them, but not me personally. We have an outreach coordinator who coordinates the common application form. Students get choices for which camp to go to. At each university there is a POC who manages the camp from that point on. They usually have male and female chaperones. Preferably teachers are involved so we can then get into the schools with lesson plans, etc. We use grad and undergrad students as well to help.

Council discussion

- JH: Could each group briefly address how you recruit your students (advertising, placing, etc)?
 - MS: NOAA Science Camp in earlier years got the information to schools via posters, mail, email. In addition, there was lots of word of mouth. Now we don't do that. With our website many people just find us. We open registration in March and are usually full within a month, it is first come first serve. There are waitlists and registration is online. Our junior leadership program is a little more selective, only 20 slots. We require letters of recommendation and an application so they get used to that for college, jobs, etc. Depending on the year we accommodate up to about 25% of students on scholarship. We reserve a certain amount of spots at the beginning for this. I would like that number to be higher.
 - VM: We have an NCAS website. The weather camps are also on a few other websites for summer programs. Lots of word of mouth and a weather geek network at the high school network. In DC we go to high schools and middle schools and do handouts. Anytime we do science demos we are handing out info. PR is a lot of TV advertising. Common web application and coordinators try to get applications to other camps that may have been a second choice if the students don't get their first choice.
 - PM: We knew the neighborhoods our buses were going to run to, and we put out flyers into the schools in those two areas of the island. Schools distributed the applications and we did not limit it. It was first come first serve. We ended up with a waiting list but we were able to increase our numbers and accommodate everyone. Next year we will be in a specific part of the island as well because of where the bus money is coming from, which dictates what areas the buses will serve.
- RG: We've had a close relationship with AMS and the teacher networks. To what extent would they be useful in strategic planning to make sure that the activities fit into the classroom? Are those teachers in anyway involved in the planning of the camps and curriculums?
 - VM: We involve teachers but not those groups you mentioned.
 - LHR: We have folks from NWS who lead activities and they bring in ideas and activities that come from those groups, but we do not use teachers from those groups specifically on our steering committee. We consult teachers to lead our student groups so we have oversight from educators.
 - SB: We look to our NWS rep and all the line offices are represented for the IRC

camp. Our Pacific Tsunami Warning Center is very active as well as the regional NWS office.

- RG: In terms of marketing and publicity, with respect to the AMS and Weatherfest, the TV broadcast is very popular and helpful as they are a great conduit to the community. In terms of the weather service, we can offer resources that our online like Jetstream and the Young Meteorologist Program.
- KJ: When students apply to Weather Camp, they can select 1st and 2nd choice for the high school students. Have you encountered students who are apprehensive about the students traveling or is that not an issue?
 - VM: It is an issue and it's culturally specific. One of the reasons the El Paso camp is commuter is that most of the students would not be allowed by their families to come. It is a very local camp. There are a lot of perception issues and we do speak to a lot of parents. In Texas we made it a commuter camp and that relieved that issue for the most part. The parents who take the initiative to call and ask always send their kids. Those are real issues and there probably are students who don't apply because of that situation.
 - SB: It can be difficult because we are on an active military base and we have to coordinate buses and special effort to make sure that there are bus chaperones.
 - MS: transportation is still a big barrier for us, even though there is a bus that goes directly onto the NOAA campus. Some parents of 6th graders may not be comfortable.
 - LHR: We also have out of state campers who come sometimes and finding accommodations can be difficult at times. We've had kids staying at the UW dorms and a student from China in the junior leadership stayed with a NOAA employee.
 - SB: That is something we have to figure out because anyone from Hawaii who isn't on Oahu will have to fly and have accommodations.
- MJ: At the American Fisheries Society conference they had a diversity and advancement session: a barrier is convincing students and families that NOAA related careers are a good idea. Is that an additional barrier that you might see?
 - VM: at the middle school level it can be a barrier. For the Aviation and Weather all girls camp (former Air Force female was going to teach the camp) one of the major hesitations from parents was "why do you want to teach my daughter to fly a plane?" In science you encounter a similar thing in El Paso with female Latino students where the female students are sometimes second. There has to be parent engagement and we invite parents to come to the end of camps and any day at any time to show what the students are doing and why. We have a community sciencefest program where we engage kids with science and talk to the parents at the same time about career opportunities.
 - MS: I wish we did more in that regard. We have a current events panel and a poster session at the end engages parents a bit by showing what the kids did. We get interesting feedback from parents that is often very helpful. We basically have to show that kids are not getting this information in school and that is why it is so important.
- CM: You have been collecting info on the effectiveness (in increasing knowledge and following up with NOAA careers), based on this info would you recommend expansion to other NOAA facilities and CSC's for increasing the pipeline and attracting more people to NOAA careers?
 - LHR: Along with Washington Sea Grant, we have been talking about models for

expanding NOAA Science Camp to other locations. The challenge is finding people to run the camps. You have to have a dedicated group of scientists who are engaged and willing to run the camp.; the model is easily replicable and was replicated by the Hawaii fisheries camp in 2014 and 2015. It's more about facilities and dedicated personnel. That's why we are interested in the weather camps and how you expanded them to different areas. We are talking about whether we can put a science camp kit on the web for teachers to do at their schools. Another partnership I'm working with is Mad Science who runs camps in various centers around the country. Mad Science creates curriculum that is common and trains all franchises in how to deliver the content. That allows us to control the content but it is delivered by someone else who has the resources.

- CM: Once the data backs up the claim that this helps our mission, it is something that leadership may listen to. We just might need to make the case more deliberately that the data back up our claim that this is a great strategy.
 - VM: the least amount of money goes to the analysis of the longitudinal data and that is where you really need the information. Our camps being free was also a barrier to recruitment early on because people thought maybe it wasn't high quality. We are putting together a decadal study of our camp, but where will that be published? Who will read that? Getting the message out is very important in having an impact.
 - LHR: it seems that the people to present that information to would be NOAA leadership.
 - CM: Once the weather camp data is available maybe making a strong case to other CSC's would be very helpful.
- PM: How do all of you deal with liability issues?
 - MS: when I came to NOAA Science Camp I came from a different program and I asked about the risk management plan. We worked thoroughly to put together a risk management plan. The NOAA facility for us already has a lot of that in place and we plugged in the camp component. Parents sign a lot of paperwork and liability clauses and we try to manage that the best that we can. We haven't had any major problems. The American Camping Association also has a certification process that accredits camps although we have not gone through that. They have great guidelines though to think about.
 - LHR: Our risk management plan has come into play a number of times.
 - VM: Most of our camps are at universities so we use their liability insurance. We have CPR training for all chaperones and directors. It is important that everyone has basic response understandings.
- LHR: you said your funding comes from NOAA, NSF, NASA, and private institutions. What is the breakdown of funding? Do you get much from an NSF grant?
 - VM: The bulk of funding comes from NOAA. We wrote an NSF grant and continue to write grants to companies, the DOE, etc. some camps may be completed funded by a grant but it is part of our network because it uses our resources. At any given time the bulk of the money comes 75-80% from NOAA funds. The rest comes from private sector or another private source. 2-3 million to CSC's total but a K-12 camp in DC probably costs around 30k a year. in Puerto Rico it costs 12k.
 - SB: How is the funding actually accepted because we can't accept funding directly?
 - VM: Just as a university that gets a government or private grant
 - LHR: For outside funding: the 40k we get from NOAA goes in a PO to Washington Sea Grant to run the camp. JISAO supplies scholarship money which goes directly to Washington Sea Grant. WSG puts in additional funding

to cover the leftover costs. The funding all goes through Sea Grant.

- NJ: At the high school level have you decided on a course that will allow students to get credit that can roll over into your specific institution?
 - VM: We tried to do that but you need an articulation agreement and a set number of hours. You can get the hours but we stopped trying to pursue because of the level of students and the grade range. We did try to undertake getting teachers credit for serving in the camp. That turned out to work well because you can negotiate with the school districts. Course enrollment at universities is very difficult though.
 - MS: No we don't. A lot of our junior leaders who go on to volunteer can get community service hours.
 - SB: We don't currently have a mechanism for that for college interns. We are looking further into credits for high school students for community service for helping out and implementing the camps.
- BR: The B-WET Hawaii program has funded camps in the past and was even a priority at one point. Are there any results from those grants in terms of lessons learned, evaluation results, partners, etc.?
 - SB: Hawaii education initiative fund was a grant award on another island. We gave them all the content and had two instructors that would go over for the weeklong camp. I think there are two ways for expansion, giving folks specific program and rules.
- BR: Are you still funding camps through B-WET
 - SB: Camps have to fit a priority, usually citizen science, professional development, or service learning projects.

Updates and announcements

- KJo: Great discussion and topic, all! Hope to follow-up to get some additional ideas. We have participated in a local summer camp with the Indian Pueblo Cultural Center here in Albuquerque. Many kids return every summer, so we are always looking for fresh ideas and that can be challenging. <http://indianpueblo.org/summercamp/>
- BM: Anyone who is interested in attending, Climate Game Jam is at Smithsonian Natural History Museum. Showcase will feature students who have developed games nationally. We finalized dates and locations for Climate Stewards workshops: Long Beach, Salt Lake City, New Orleans, Boulder, Detroit, and Charleston and a full day at NSTA in Nashville. More info coming soon.
- JH: In 2016, we are not running our typical Teacher at Sea program, we are doing an external review and evaluation. Our application for new participants will be in November. We will be sending some alumni to sea this summer.
 - Having our final awards ceremony at the Inuoye center at 9am on Friday and will be receiving the award from Senator Hirono's staff.
- SSc: We are few weeks away from the ELG deadline. Thanks for responding to requests for assistants and assets. We are not planning to offer the funding again in 2017.
- KJ: Hollings and EPP undergrad scholarships close next Friday.
- LHR: Alaska Marine Science Symposium is next week in Anchorage.
- NJ: The University of Wisconsin and Federation for Earth Sciences are having a teacher workshop in July.
- SH: The *Okeanos Explorer* is starting its season today off of Hawaii and first ROV expedition will be 21st of February.

- PK: Melissa Ryan, who used to work with us, left and her position is now being advertised.
- SB: We are in the process of getting an additional hire to help out with B-WET Hawaii coordination and coordination with OCM and Sanctuaries.

Upcoming Council Meetings:

All agenda items are tentative

- Ensure alignment with [Council presentation guidance](#)

February 17, 2016

March 16, 2016

April 20, 2016

May 18, 2016

June 15, 2016

July 20, 2016

August 17, 2016

September 21, 2016

October 19, 2016

November 16, 2016

December 21, 2016